

CLAIMS

We claim:

1. A kit for locating a distal femoral resection plane in uni-compartmental knee surgery, the kit comprising:

5 a shim including a shim arm and a mounting member connected to the shim arm;
and

a combination cutting and spacer guide including a cutting block portion and a guide arm portion,

10 the cutting block portion having an anterior side and a posterior side and surfaces defining a cutting guide slot extending from the anterior side to the posterior side, the cutting guide slot lying in a plane defining the distal femoral resection plane,

15 the guide arm portion having a posterior end spaced from the cutting block portion, a planar femoral surface extending outward from the posterior side of the cutting block portion to the posterior end, and a planar tibial surface extending from the cutting block portion outward to the posterior end, the tibial surface and femoral surface being substantially parallel to and spaced from the distal femoral resection plane;

the combination cutting and spacer guide having a shim mounting opening;

20 wherein the shim arm has a planar contact surface for contacting part of the guide arm and a planar contact surface for contacting part of one of the bones of the knee, the mounting member being sized and shaped to be receivable within the mounting opening

of the combination cutting and spacer guide to removably mount the shim to the guide arm.

2. The kit of claim 1 wherein the shim comprises a femoral shim and wherein the arm of the femoral shim has a surface area substantially the same as the surface area of
5 the femoral surface of the guide arm of the combination cutting and spacer guide.
3. The kit of claim 2 further comprising at least one tibial shim having a tibial shim arm and a tibial shim mounting member connected to the tibial shim arm wherein the tibial shim arm has a planar contact surface for contacting part of the guide arm and a planar contact surface for contacting part of the tibia, the tibial shim mounting member
10 being sized and shaped to be receivable within the shim mounting opening of the combination cutting and spacer guide.
4. The kit of claim 3 wherein the planar contact surface of the tibial shim arm has a larger surface area than the surface area of the femoral shim.
- 15 5. The kit of claim 1 wherein the cutting block portion is removably mountable to the femur.
6. The kit of claim 5 wherein the cutting block portion includes a plurality of holes extending from the anterior side to the posterior side for mounting the combination

cutting and spacer guide to the femur, the kit further comprising anchoring members receivable within the holes in the cutting block portion and a cutting member receivable within the cutting guide slot.

7. The kit of claim 1 wherein the guide arm comprises a pair of spaced parallel
5 plates integral with the cutting block portion.
8. The kit of claim 1 wherein the cutting block portion and the guide arm portion are integral.
9. The kit of claim 8 wherein the cutting block portion has a bottom surface coplanar with the tibial surface of the guide arm.
- 10 10. The kit of claim 1 wherein the guide arm and shim are sized to be received on a single side of the tibia.
11. The kit of claim 1 wherein the tibial surface of the guide arm has a maximum medial-lateral dimension of 32 mm and a maximum anterior-posterior dimension of 57 mm.
- 15 12. The kit of claim 1 wherein the combination cutting and spacer guide has a maximum anterior-posterior dimension along the tibial surface of the distal side of the

cutting block portion and the tibial surface of the guide arm of 67 mm.

13. The kit of claim 1 wherein the femoral surface of the guide arm has a maximum medial-lateral dimension of 17 mm and a maximum anterior-posterior dimension of 47 mm.

5 14. The kit of claim 1 wherein the shim mounting opening of the combination cutting and spacer guide comprises an elongate slot extending from the medial to the lateral side of the guide arm.

15. A combination cutting and spacer guide for use in cutting along a distal femoral resection plane in uni-compartmental knee surgery, the combination cutting and spacer
10 guide including a cutting block portion and an integral guide arm portion,
the cutting block portion having an anterior side and a posterior side and surfaces defining a cutting guide slot extending from the anterior side to the posterior side, the cutting guide slot lying in a plane defining the distal femoral resection plane,
the integral guide arm portion having a posterior end spaced from the cutting
15 block portion, a planar femoral surface extending from an edge along the posterior side of the cutting block portion to the posterior end, a planar tibial surface extending from the cutting block portion to the posterior end, a medial side, a lateral side, and an opening between the femoral surface and the tibial surface extending from at least one of the medial edge and the lateral edge of the guide arm portion, wherein the tibial surface and

femoral surface are substantially parallel to and spaced from the distal femoral resection plane.

16. The combination cutting and spacer guide of claim 15 wherein:

the femoral surface has a length from the anterior edge to the posterior edge and a
5 width from the medial edge to the lateral edge;

the tibial surface has a length from the combination cutting and spacer guide to
the distal edge and a width from the medial edge to the lateral edge; and

the width of the femoral surface and width of the tibial surface are equal to each
other along substantial parts of the lengths of the femoral surface and tibial surface of the
10 guide arm portion.

17. The combination cutting and spacer guide of claim 15 wherein the guide arm
comprises a pair of spaced parallel plates.

18. The combination cutting and spacer guide of claim 15 wherein the guide arm is
sized to be received on a single side of the tibia.

15 19. The combination cutting and spacer guide of claim 15 in combination with a
femoral shim including a femoral shim arm and a mounting member connected to the
femoral shim arm, wherein the mounting member is received in the opening of the guide
arm, the femoral shim arm having a planar surface overlying the femoral surface of the

guide arm and a planar surface for contacting the distal end of the femur.

20. The combination cutting and spacer guide of claim 19 in combination with a tibial shim comprising a tibial shim arm and a mounting member connected to the tibial shim arm, wherein the mounting member is received in the opening of the guide arm, the tibial
5 shim having a planar surface underlying the tibial surface of the guide arm and a planar surface for contacting a resected surface of the tibia.

21. The combination cutting and spacer guide of claim 15 wherein the opening of the combination cutting and spacer guide comprises an elongate slot extending from the medial to the lateral side of the guide arm.

10 22. The combination cutting and spacer guide of claim 15 wherein the cutting block portion is removably mountable to the femur.

23. The combination cutting and spacer guide of claim 22 wherein the cutting block portion includes a plurality pair of holes extending from the anterior side to the posterior side for mounting the combination cutting and spacer guide to the femur.

15 24. A method of resecting the distal end of a single condyle of a femur, the method comprising:
providing a surgical kit including a combination cutting and spacer guide having a

cutting block portion and a guide arm portion, the cutting block portion having an anterior surface, a posterior surface and a cutting guide slot extending from the anterior to the posterior surface, the guide arm portion having a planar femoral surface and a planar tibial surface;

5 resecting a portion of one side of the proximal tibia adjacent one condyle at the distal end of the femur;

 inserting the guide arm portion of the combination cutting and spacer guide into the space between the distal end of the femur and resected tibia while the knee is extended;

10 manipulating the knee with the guide arm portion between the distal end of the femur and resected tibia;

 temporarily attaching the combination cutting and spacer block to the femur but not to the tibia; and

 inserting a cutting implement through the cutting slot of the cutting block portion
15 of the combination cutting and spacer block to resect the distal femur along a distal femoral resection plane.

25. The method of claim 24 wherein the guide arm includes an opening, the method further comprising:

 providing a femoral shim including a femoral shim arm and a mounting member
20 connected to the femoral shim arm;

 inserting the mounting member of the femoral shim arm into the opening of the

guide arm before temporarily attaching the combination cutting and spacer guide to the femur and before resecting the distal femur,

inserting the guide arm portion of the combination cutting and spacer guide and the femoral shim into the space between the distal end of the femur and resected tibia

5 while the knee is extended and before resecting the distal femur;

inserting the cutting implement through the cutting slot of the cutting block portion of the combination cutting and spacer block to resect the distal femur along a distal femoral resection plane after the combination cutting and spacer guide and femoral shim are in position between the distal femur and the resected tibia;

10 wherein the amount of bone resected from the distal femur with the femoral shim in place is less than the amount of bone that would have been resected without the femoral shim in place.

26. The method of claim 24 wherein manipulating the knee includes placing the knee in flexion with the combination cutting and spacer guide in place between the femur and
15 the resected tibia.